Illustrated Parts & Service Map

HP Compaq dc5750 Small Form Factor Business PC

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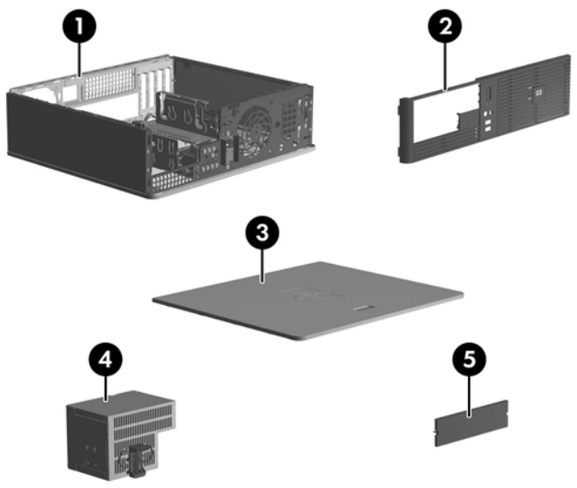
Key Specifications

Processor Type:	AMD Athlon 64 Dual Core, AMD Athlon 64, and AMD Sempron 64 with HyperTransport
RAM Type:	DDR PC2-5300 non-ECC
Maximum RAM Supported:	4 GB
Expansion Bus:	PCI 2.3 (2), PCI-E x1 (1), PCI-E x16 (1)
Graphics Adapter	Integrated controller. PCI-E support.
Hard drive interface:	SATA 3.0 Gb/s
I/O Interfaces:	Serial (1 std + 1 optional), parallel (1), USB 2.0 (8), RJ-45 (1), front and rear audio jacks (2 each), P/S2 (2), and VGA (1)

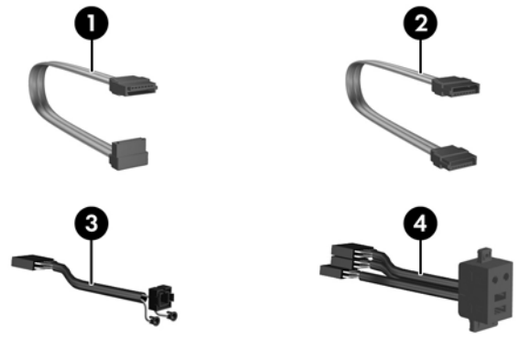
Spare Parts



System Unit

1	Chassis	not spared
2	Front bezel assembly	432867-001
3	Access panel	432868-001
4	Power supply, 240W	404796-001
5	5.25-in bezel blank	335937-005

** Not shown*



Cables

1	Not used this product	
2	SATA HDD cable, 14-in. lg (2 straight ends)	391740-001
2	SATA HDD cable, 10-in. lg (2 straight ends)	392307-001
*	Diskette drive cable	439216-001
3	Power/LED cable with switch and LED holder	432871-001
4	Front I/O with USB and audio cables	432870-001
*	DMS-59 to dual VGA cable adapter	339257-001

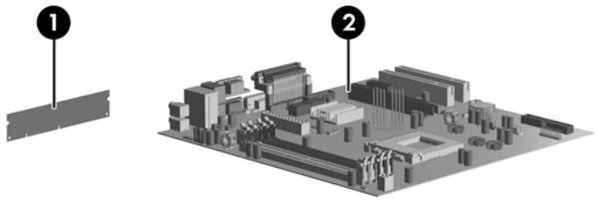
**Not shown*

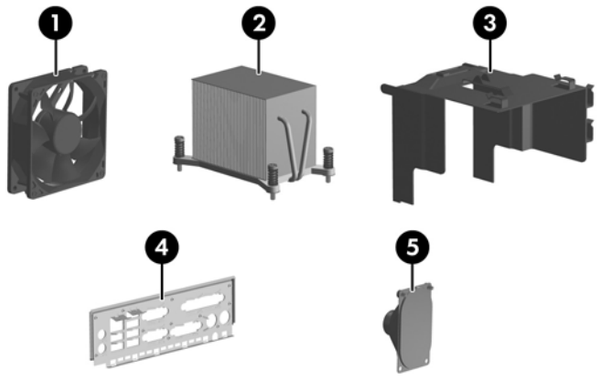
Keyboards (not illustrated)

PS/2, Basic	**382925-xxx**
PS/2, Basic, 105 key	**396215-xxx**
USB, Basic	**382926-xxx**
USB, Basic, BG1650	**382927-xxx**
USB SmartCard	**393670-xxx**
USB, Basic, 105 key	**369217-xxx**

Arabic[1]	-171	Kazakh[5]	-DF1
Belgian[2]	-181	Korean (Hangul)[3]	-AD1
BHCSY[3]	-B41	LA Spanish[3]	-161
Brazilian Portuguese[3]	-201	Netherlands[5]	-331
Czech[3]	-221	Norwegian[3]	-091
Danish[2]	-081	PRC[3]	-AA1
Estonian[5]	-CA1	Portuguese[3]	-131
Finnish[3]	-351	Romanian[7]	-271
French[2]	-051	Russian[4]	-251
French Arabic[3]	-DE1	Slovakian[3]	-231
French Canadian[3]	-121	Spanish[3]	-071
German[2]	-041	Swedish[2]	-101
Greek[4]	-151	Swiss[2]	-111
Hebrew[3]	-BB1	Taiwanese[3]	-AB1
Hungarian[3]	-211	Thai[3]	-281
Icelandic[5]	-DD1	Turkish[3]	-141
International[2]	-B31	U.S.[6]	-001
Italian[2]	-061	Ukrainian[7]	-BD1
Japanese[3]	-291	U.K.[3]	-031

[1] only for 382925-xxx, 396215-xxx, and 396217-xxx
[2] only for 382925-xxx, 382926-xxx, 382927-xxx, and 393670-xxx
[3] only for 382925-xxx, 382926-xxx, and 393670-xxx
[4] only for 396215-xxx, 396217-xxx, or 393670-xxx
[5] only for 393670-xxx
[6] only for 393670-xxx and 382926-xxx
[7] only for 382925-xxx and 382926-xxx





Standard and Optional Boards

Memory modules, non-ECC, DDR2		
1	256 MB, PC2-5300, CL5	396519-001
*	512 MB, PC2-5300, CL5	396520-001
*	1 GB, PC2-5300, CL5	398038-001
System Boards with thermal grease, alcohol pad, and CPU socket cover		
2	Standard board	432861-001
*	Board for vPro applications without embedded security (Russia only)	434370-001
AMD Sempron64 processor with 800 MHz HyperTransport		
*	3400+, 1.8 GHz, 256K cache, 1.6 GHz FSB	433506-001
*	3600+, 2.0 GHz, 256K cache, 1.6 GHz FSB	435919-001
AMD Athlon64 processor with 1.0 GHz HyperTransport,		
*	3500+, 2.2 GHz, 512 KB cache, 2.0 GHz FSB	435911-001
*	3800+, 2.4 GHz, 512 KB cache, 2.0 GHz FSB	435912-001
AMD Athlon 64 Dual Core processor with 1.0 GHz HyperTransport		
	3800+, 2.0 GHz, 1.0 MB cache, 2.0 GHz FSB	435913-001
*	4200+, 2.2 GHz, 1.0 MB cache, 2.0 GHz FSB	435914-001
	4600+, 2.4 GHz, 1.0 MB cache, 2.0 GHz FSB	435915-001
*	5000+, 2.6 GHz, 1.0 MB cache, 2.0 GHz FSB	435917-001
Other boards		
*	ATI Radeon X1300Pro, 256 MB, PCIe, with DVI-I and S-Video output	413023-001
*	ATI Radeon X1300Pro, 256 MB, PCIe, with DMS59 output and S-Video input	432947-001
*	ATI Radeon X1600XT, 256 MB, PCIe, with DVI-I and S-Video output	419543-001
*	Standard 1394 PCI card with 2 external and 1 internal ports, FH	393308-001
*	Standard 1394 PCI card with 2 external and 1 internal ports, LP	393307-001
*	Broadcom 5751 Gigabit NIC, PCIe, FH	393626-001
*	Agere International 56K Modem, FH	398661-001
*	DVI-I to VGA graphics adapter	202997-005

** Not shown*
LP = Low profile
FH = Full height

Mass Storage Devices (not illustrated)

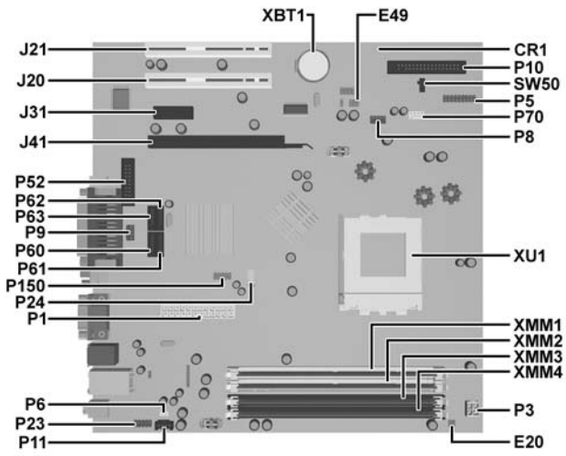
	Diskette drive with bezel and cable	431452-001
	Media card reader, 3.5-in	407187-001
	Media card reader, 5.25-in	412838-001
	52X SATA CD-ROM drive (APJ only)	419469-001
	16X SATA DVD-ROM drive	419496-001
	48X SATA CD-ROM drive	419635-001
	16X SATA DVDRW L drive with LightScribe	419498-001
	16x/48x Combo drive	419497-001
	80-GB\7200 RPM SATA hard drive, 8MB cache	432392-001
	160-GB\7200 RPM SATA hard drive, 8MB cache	432393-001
	250-GB\7200 RPM SATA hard drive, 8MB cache	432394-001

Miscellaneous Parts

Miscellaneous screw kit, includes:		414180-001
*	#6-32 x .250 hitop screw with serrations (192308-001)(14 ea)	
*	(192308-002) (4 ea)	
*	(192308-003) (6 ea)	
*	(106902-001) (2 ea)	
*	(334248-001) (4 ea)	
*	(247481-001) (8 ea)	
*	(247348-001) (8 ea)	
*	(368224-002) (2 ea)	
*	(101517-067) (12 ea)	
1	Chassis fan	432869-001
2	Heatsink with alcohol pad and factory-applied thermal grease	432866-001
3	Fan duct	435097-001
4	Rear I/O panel	435528-001
*	Mouse, PS2**,** scroll type	390937-001
*	Mouse, USB**,** scroll type	390939-001
*	Mouse, PS2, optical	417966-001
*	Mouse, USB, optical	390938-001
*	Battery, real-time clock	153099-001
5	Internal speaker	430129-001
*	Second serial port, LP	432875-001
*	Tower stand	436533-001

**Not shown*
LP = Low profile
FH = Full height

System Board



System Board Connectors and Jumpers (position of some untitled components may vary in location)			
CR1	5VAUX LED	P60	SATA0
E20	Ambient Temperature	P61	SATA1
E49	Password	P62	SATA2
J20	PCI slot 1	P63	SATA3
J21	PCI slot 2	P70	CPU fan (fansink)
J31	PCIE X1	P8	Primary chassis fan
J41	PCIE X16	P9	Chassis fan
P1	Main power	P150	Card reader
P10	Diskette drive	SW50	Clear CMOS
P11	Aux audio	XBT1	Real-time-clock battery
P23	Front audio	XMM1	DIMM 1
P24	Front USB	XMM2	DIMM 2
P3	CPU power	XMM3	DIMM 3
P5	Power button/LED	XMM4	DIMM 4
P52	Flying serial port	XU1	Processor
P6	Internal speaker		

System Setup and Boot

Basic system information regarding system information, setup, power management, hardware, and passwords is maintained in the Setup Utility held in the system ROM. The Setup Utility is accessed by pressing the F10 key when prompted (on screen) to do so during the boot sequence. If the screen prompt opportunity is missed, a restart will be necessary.

Computer Setup Menu

Heading	Option/Description
File	System Information - Lists the following main system specifications: • Product name • SKU number (some models) • Processor type/speed/stepping • Cache Size (L1/L2) • Memory size/speed/ no. channels • Integrated MAC Address • System BIOS • Chassis serial number • Asset tracking number
	About - Displays copyright notice.
	Set Time and Date - Allows you to set system time and date.
	Flash System ROM (some models) - Allows you to select a drive containing a new BIOS.
	Replicated Setup - Save to Removable Media and Restore from Removable Media
	Default Setup • Save Current Settings as Default • Restore Factory Settings as Default
	Apply Defaults and Exit - Applies the selected default settings and clears any established passwords.
	Ignore Changes and Exit - Exits Computer setup without applying or saving any changes.
	Save Changes and Exit - Saves changes to system configuration or default settings and exits Computer Setup.
Storage	Device Configuration - Lists all installed BIOS-controlled storage devices. The following options are available: • Diskette Type (Legacy Diskette only) - 3.5” 1.44 MB and 5.25” 1.2 MB • Drive Emulation of ATAPI Zip drive, hard disk, and ATAPI LS-120 drive • Multisector Transfers • Translation Mode • Translation Parameters • Default Values IDE/SATA
	Storage Options - • Removable Media Boot • Legacy Diskette Write • BIOS DMA Data Transfers • SATA Emulation - SATA 0 and 2, SATA 1 and 3, SATA 4 (some models) SATA 5 (some models)
	DPS Self-Test - Allows you to execute self-tests on ATA hard drives.

Computer Setup Menu *(Continued)*

Heading	Option / Description
Storage (Continued)	Boot Order - Allows you to specify boot order.
Security	Smart Card Options (some models) - Allows you to enable/disable the Smart Card.
	Setup Password - Allows you to set and enable the setup (Administrator) password.
	Power-On Password - Allows you to set and enable power-on password.
	Password Options - When any password exists allows you to lock legacy resources, enable/disable network server mode, specify password requirement for warm boot, and allows you to enable/disable Setup Browse Mode.
	Embedded Security (some models) - Allows you to enable/disable Embedded Security and power-on authentication support, reset device to factory settings, and reset authentication credentials.
	Device Security (some models) - Enables/disables all I/O ports, audio, network controllers, SMBus controller, and embedded security devices.
	Network Service Boot - Enables/disables boot from OS on a server.
	System IDs - Allows you to set Asset tag, ownership tag, Chassis serial number, UUID, and keyboard locale setting.
	DriveLock Security - Allows you to assign/modify a hard drive password for added security.
	OS Security - Allows you to enable/disable Data Execution Prevention and OS management of Embedded Security Device
	Setup Security Level - Allows for limited changes to setup options without password.
Power	OS Power Management - Allows you to enable/disable Runtime Power Management, ACPI S3 Hard Disk Reset, and ACPI S3 PS2 Mouse Wakeup. Also Allows you to improve Idle Power Savings and to permit system to awaken when USB device is inserted.
	Thermal - Allows you to control minimum permitted fan idle speed.
Advanced Features	Power-On Options - Allows you to set: • POST mode - QuickBoot, FullBoot, or FullBoot every 1-30 days. • POST messages - Enable/disable • F9 prompt - Enable/disable • F10 prompt - Enable/disable • F12 prompt - Enable/disable • Option ROM prompt - Enable/disable • Remote wakeup boot source - Remote server/local hard drive • After Power Loss - Off/on/previous state • POST delay - None, 5, 10, 15, or 20 seconds • I/O APIC mode - Enable/disable
	Onboard Devices - Allows you to set resources or disable onboard system devices.
	PCI Devices - Lists installed PCI devices with their IRQ settings and allows you to reconfigure IRQ or disable devices.
	PCI VGA Configuration - Allows you to specify which VGA controller will be used when multiple video adapters are available.
	Bus Options (some models) - Allows you to enable/disable PCI SERR# Generation and PCI VGA palette snooping.
	Device Options - Allows you to set: • Printer Mode - Bi-Directional, EPP & ECP, Output Only • Num Lock state at power-on - off/on • S5 Wake on LAN - enable/disable • Processor cache - enable/disable • Unique Sleep State Blink Patterns • Integrated video - enable/disable • Integrate graphics memory size • Internal speakers (some models) - enable/disable • Monitor tracking - enable/disable • NIC PXE Option ROM Download - enable/disable

System Hardware Interrupts			
IRQ	**System Function**	**IRQ**	**System Function**
0	Timer Interrupt	8	Real-Time Clock
1	Keyboard	9	Unused
2	Interrupt Controller Cascade	10	Unused, available for PCI
3	Serial Port (COM B)	11	Unused, available for PCI
4	Serial Port (COM A)	12	Mouse
5	Unused, available for PCI	13	Coprocessor
6	Diskette Drive	14	Primary ATA (IDE) Controller
7	Parallel Port (LPT 1)	15	Secondary ATA (IDE) Controller

Failsafe Boot Block ROM

The computer comes with a reprogrammable flash system ROM (read only memory). To upgrade the ROM, download the latest ROM BIOS image from the HP Web site (www.hp.com) and follow the online GUI/instructions.

Your system ROM includes a Failsafe Boot Block that is protected during the flash process and allows the computer to be restarted in the unlikely event of an unsuccessful ROM flash.
If the system detects an invalid system ROM during the boot sequence, the Failsafe Boot Block attempts to locate a valid BIOS image on removable media. To recover from the Boot Block recovery mode complete the following steps:

Boot Block Recovery

1. Remove any bootable media from the computer and turn off power.
2. Insert a flash drive or CD containing the ROM BIOS.
3. Turn on power to the system.
4. The system will automatically flash the ROM. After a successful flash, the system will either automatically restart or prompt the user to unplug the unit, wait 5 seconds, reattach the power cord, and then press the power button.

Password Security

Establishing a Setup password:

1. Turn on or restart the computer. If you are in Windows, click **Start > Shut Down > Restart**.
2. As soon as the computer is turned on, press F10 when the monitor light turns green to enter Computer Setup. Press Enter to bypass the title screen, if necessary. If you do not press F10 when prompted, a restart will be necessary.
3. Select **Security > Setup Passwor**d and follow the instructions on the screen.
4. Before exiting, click **File > Save Changes and Exit**.

Establishing a Setup password:

1. Turn on or restart the computer. If you are in Windows, click **Start > Shut Down > Restart**.
2. As soon as the computer is turned on, press F10 when the monitor light turns green to enter Computer Setup. Press Enter to bypass the title screen, if necessary. If you do not press F10 when prompted, a restart will be necessary.
3. Select **Security > Power-On Passwor**d and follow the instructions on the screen.

Before exiting, click **File > Save Changes and Exit**.

Changing a password:

1. Turn on or restart the computer. If you are in Windows, click **Start> Shut Down > Restart**.

To change the Setup password, go to step 2.
To change the Power-on password, go to step 3.

2. To change the Setup password, as soon as the computer is turned on, press F10 when the monitor light turns green to enter Computer Setup. Press Enter to bypass the title screen, if necessary.
3. When the key icon appears, type your current password, a slash (/) or alternate de-limiter character, your new password, another slash (/) or alternate delimiter character, and your new password again as shown:

   current password/new password/new password.

   NOTE: Type the new password carefully since the actual characters do not appear on the screen.
4. Press ENTER.

The new password will take effect the next time the computer is restarted.

Deleting a password

1. Turn on or restart the computer. If you are in Windows, click **Start > Shut Down > Restart**.

To delete the Setup password, go to step 2.
To delete the Power-On password, go to step 3.

2. To change the Setup password, as soon as the computer is turned on, press F10 when the monitor light turns green to enter Computer Setup. Press Enter to bypass the title screen, if necessary.
3. When the key icon appears, type your current password followed by a slash (/) or alternate delimiter character as shown. Example: currentpassword/
4. Press Enter.

Security Features

NOTE:
For more information about Setup Utilities refer to the Computer Setup Menu on the previous page or in the *Service Reference Guide.*

Diagnostic Functions

Diagnostic functions are provided by the Setup Utility (in system ROM) and by Insight Diagnostics. Insight Diagnostics provides detailed system information including:

- Processor type and speed
- Memory amount, mapping, and integrity
- Hardware peripheral availability/settings
- Hard drive type, space used/available
- System identification, asset tracking

Insight Diagnostics may be found on the *Documentation and Diagnostics* CD that shipped with the computer. The tool may also be downloaded from the hp Web site using the following procedure:

1. Go to www.hp.com
2. Click the **Software and Download driver** link.
3. Enter the product number (for example, dc7700) in the text box and press the **Enter** key.
4. Select the specific product.
5. Select the OS.
6. Click the **Diagnostics** link.
7. Select **HP Insight Diagnostics Offline Edition**.
8. Select the proper language and click **Download**.

NOTE: The download includes instructions on how to create a bootable CD. The SoftPaq number is SP33665 or later.

Error Messages

Diagnostic LEDs

LED	Color	LED Activity	State/Message
Power	Green	On	Computer on
Power	Green	1 blink every 2 seconds	Normal Suspend Mode
Power	Red	1 blink every second followed by a 2 second pause	CPU thermal shutdown
Power	Red	3 blinks, 1 blink every second followed by a 2 second pause	Processor not installed
Power	Red	4 blinks, 1 blink every second followed by a 2 second pause	Power failure (power supply overload)
Power	Red	5 blinks, 1 blink every second followed by a 2 second pause	Pre-video memory error
Power	Red	6 blinks, 1 blink every second followed by a 2 second pause	Pre-video graphics error
Power	Red	7 blinks, 1 blink every second followed by a 2 second pause	System board failure (ROM
Power	Red	8 blinks, 1 blink every second followed by a 2 second pause	Invalid ROM based on Checksum
Power	Red	9 blinks, 1 blink every second followed by a 2 second pause	System powers on but is unable to boot
Power	Red	10 blinks, 1 blink every second followed by a 2 second pause	Bad option card
none	none	System does not power on and LEDs are not flashing	System unable to power on

Common POST Error Messages

Screen Message	Beeps	Probable Cause	Recommended Action
101-Option ROM Error	1L, 1S	1. System ROM checksum error. 2. Expansion card. 3. CMOS corruption. 4. System board.	1. Verify ROM, reflash if required 2. Remove suspected card, reboot 3. Clean CMOS memory, reboot 4. Replace system board
103-System Board Failure	none	DMA, timers	1. Clear CMOS memory. 2. Remove expansion board. 3. Replace system board.
164-Memory Size Error and 201 Memory Error	2S	Incorrect memory configuration	1. Run Setup (F10). 2. Check DIMMs for proper seating, type, and HP compatibility. 3. Remove DIMMs singularly and reboot to isolate faulty DIMM.
214-DIMM Configuration Warning	none	Populated DIMM configuration is not optimized	Rearrange the DIMMs so that each channel has the same amount of memory.
301-, 304-Keyboard error	none	Keyboard failure.	Check keyboard connection or keys. Replace keyboard. If 304, possible system board problem.
501-Display Adapter Failure	1L, 2S	Graphics controller.	1. Reseat graphics card. 2. Check monitor connection. 3. Replace graphics card.
1720-SMART Hard Drive Detects Imminent Failure	none	Hard drive is about to fail.	Run drive protection system test if available. Check for firmware patch for erroneous error message.
1796-SATA Cabling Error	none	One or more SATA devices are improperly attached.	Ensure SATA0 and SATA1 are used before any other SATA connectors.
1801-Microcode Patch Error	none	Processor not supported by ROM BIOS.	1. Upgrade BIOS to proper version. 2. Change the processor.

NOTES: L = long, S = short

Clearing CMOS

1. Shut down the system and disconnect the power cord from the power outlet.
2. Remove the chassis access panel.
3. Unplug the diskette drive cable from the system board if installed.
4. On the system board, slide the CMOS switch SW50 and hold it for 5 seconds.
5. Replace the diskette drive cable if required.
6. Replace the chassis access panel and reconnect the power cord.
7. Turn on the computer and allow it to start.